

(6 pages)

Reg. No. :

Code No. : 10333 E Sub. Code : AMCS 62

B.Sc. (CBCS) DEGREE EXAMINATION, APRIL 2023.

Sixth Semester

Computer Science – Core

SOFTWARE ENGINEERING AND TESTING

(For those who joined in July 2020 only)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. Which is the first step in the software development life cycle?
(a) Analysis
(b) Design
(c) Problem/Opportunity Identification
(d) Development and Documentation

2. Which of the following is an important factor that can affect the accuracy and efficacy of estimates?
(a) Project size
(b) Planning process
(c) Project complexity
(d) Degree of structural uncertainty
3. What describes the data and control to be processed?
(a) Planning process (b) Software scope
(c) External hardware (d) Project complexity
4. Which one is not a risk management activity?
(a) Risk assessment
(b) Risk generation
(c) Risk control
(d) None of the mentioned
5. The importance of software design can be summarized in a single word which is:
(a) Efficiency (b) Accuracy
(c) Quality (d) Complexity
6. In Design phase, which is the primary area of concern?
(a) Architecture (b) Data
(c) Interface (d) All of the mentioned

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7. A characteristic of a software system that can lead to a system error is known as?
(a) Human error or mistake
(b) System fault
(c) System error
(d) System failure
8. Unit testing is done by _____
(a) Users
(b) Developers
(c) Customers
(d) None of the mentioned
9. Quality planning is the process of developing a quality plan for
(a) team (b) project
(c) customers (d) project manager
10. The incorrect activity among the following for the configuration management of a software system is
(a) Version management
(b) System management
(c) Change management
(d) Internship management

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PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).
Each answer should not exceed 250 words.

11. (a) Summarize the need of object oriented design.
Or
(b) Explain the data structure oriented design.
12. (a) What are the properties that Software Requirements Specification (SRS) should possess? Describe.
Or
(b) Write about SPMP document of project planning.
13. (a) Explain the overview of SA/SD methodology.
Or
(b) What are the classification of design activities? Explain.
14. (a) Elaborate the characteristics of a good user interface.
Or
(b) Write a short note on white-box testing.

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[P.T.O.]

15. (a) What are the shortcomings of ISO 9000 certification? Explain.

Or

(b) Distinguish between the hardware and software reliability.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b)
Each answer should not exceed 600 words.

16. (a) Determine the different phases of the spiral model with neat diagram.

Or

(b) Outline the high level language programming.

17. (a) Discuss the important categories of customer requirements.

Or

(b) What are the need of functional requirements of software? Explain.

18. (a) Draw and explain the concept of structured design.

Or

(b) Discuss the main purpose of unit testing.

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19. (a) Compare the internal and external software documentation.

Or

(b) What are the basic concepts and terminologies of testing? Explain.

20. (a) Formulate the need of software reverse engineering.

Or

(b) What are the characteristics of software evolution? Explain.

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